

Notes on the ICE BRIDGE meeting, Monday, December 14, 2009, AGU 1230-1330

Seelye Martin

Background: Operation Ice Bridge is a current NASA mission that was initiated to bridge the data gap that will be created between the end of the ICESat-1 satellite, which will probably occur this year, and the launch of the ICESat-2 satellite, in the 2015 time frame. Operation Ice Bridge will use NASA aircraft equipped with laser altimeters, depth sounding and near surface radars and gravimeters to continue monitoring ICESat-1 ground tracks as well as other dynamic areas of the Greenland and Antarctica Ice Sheets and the surrounding sea ice. For additional information about Operation Ice Bridge please contact Lora Koenig, lora.s.koenig@nasa.gov, or Seelye Martin, seelye@ocean.washington.edu, or visit http://www.nasa.gov/topics/earth/features/ice_bridge/index.html for education and outreach material or <http://www.espo.nasa.gov/oib/> for more on mission logistics.

The meeting began at 1230. Lora Koenig stated that there would be a proposal call in early 2010 for Ice Bridge. This was followed by Seelye Martin with a 15 minute powerpoint presentation on ICE BRIDGE.

At the end of this presentation, the community was asked to provide a list of locations in Greenland with active studies or fieldwork that would benefit from an Ice Bridge flight line overpasses in the upcoming seasons. The community was asked to e-mail Lora Koenig or Seelye Martin with specifics on their fieldwork locations or other locations of interest. These locations will be taken into consideration as Ice Bridge finalizes flight lines in the upcoming weeks.

This was followed by an open discussion:

Anne Nolin is concerned about roughness maps of Greenland surface, would like to have a summer overflight of interior.

General: Concerns about funding, University people need a letter stating that funding will be coming.

Seelye Martin: we have a request for Canadian ice cap flights and for flights around Svalbard. We also have a request for gravity overflights of the Petermann glacier ice shelf, which is a 60-km long ice shelf, to map out the drainage system in support of future oceanographic studies, and a potential Autosub survey.

Various people representing the DC-8: They need to know if aircraft will be used by beginning of January, so that they can start the diplomatic clearance procedure.

Question: Are we going to fly the Fairbanks-Thule sea ice lines again? Yes, they are currently planned.

Rick Forester: would like flights over SE Greenland; Jason Box would like flights over West Greenland and over Humbolt glacier, he characterizes Humbolt as the “sleeping giant of Greenland”, ie, largest glacier on Greenland.

General: Requests for flights over Summit, and over the 79N ice stream.

Konrad Steffen: extend Jakobshavn grid further inland.

Robin Bell: do we want to fly the magnetometer? Question: what will the magnetometer provide?

Ian Howat: will provide list of flights for ice tongue surveys (note that Petermann is already on the list)

Ken Mankoff: Request to fly a thermal instrument to look at water temperatures near ice fronts, especially for Antarctic flights.

Steve Ackley: For sea ice, check if ULS line is still in existence across Fram Strait, if so, overfly them.

Anthony Arendt: consider flying the Geikie Plateau region of West Greenland.

General: the Rink and Store glaciers in west Greenland together provide as much outflow as the Jakobshavn. Do 2-km topographic map of bed rock topography.

Ian Howat: will provide list of ice tongues for surveys.

Chris Schuman: need to make list of flights to repeat, flights to one off.

Steve Barrick: data management NASA HQ, expresses concern from Headquarters about importance of getting data distributed, and into the NSIDC archive. There is also pressure from HQ about not re-flying an instrument before data is distributed and archived.

NASA Earth Sciences Project Office: need to decide first week in January about planes, basing issues.

General importance of coordinating our work with numerical modelers.

Kansas has produced a 10-km gridded map of ice interior. Question: how good is this map, can we look at cross-over points to determine accuracy?

Meeting concluded at 1330.